

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/699,716DATE: 11/13/96  
TIME: 14:49:38

INPUT SET: S13766.raw

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

## SEQUENCE LISTING

1  
2  
3 (1) General Information:  
4 (i) APPLICANT: David G. Heath  
5 Arthur M. Friedlander  
6 George W. Anderson  
7 Susan L. Welkos  
8  
9 (ii) TITLE OF INVENTION: Recombinant F1-V Plague Vaccine  
10  
11 (iii) NUMBER OF SEQUENCES: 6  
12  
13 (iv) CORRESPONDENCE ADDRESS:  
14 (A) ADDRESSEE: John Moran  
15 (B) STREET: USA MPMC - MPMC-JA  
16 (C) CITY: FORT DETRICK, FREDERICK  
17 (D) STATE: MARYLAND  
18 (E) COUNTRY: USA  
19 (F) ZIP: 21702-5012  
20  
21 (v) COMPUTER READABLE FORM:  
22 (A) MEDIUM TYPE: Floppy disk  
23 (B) COMPUTER: Apple Macintosh  
24 (C) OPERATING SYSTEM: Macintosh 7.5  
25 (D) SOFTWARE: Microsoft Word 6.0  
26  
27 (vi) CURRENT APPLICATION DATA:  
28 (A) APPLICATION NUMBER:  
29 (B) FILING DATE:  
30 (C) CLASSIFICATION:  
31  
32 (vii) PRIOR APPLICATION DATA:  
33 (A) APPLICATION NUMBER:  
34 (B) FILING DATE:  
35  
36 (viii) ATTORNEY/AGENT INFORMATION:  
37 (A) NAME: Moran, John  
38 (B) REGISTRATION NUMBER: 26,313  
39 (C) REFERENCE/DOCKET NUMBER:  
40  
41 (ix) TELECOMMUNICATION INFORMATION  
42 (A) TELEPHONE: (301) 619-2065  
43 (B) TELEFAX: (301) 619-7714  
44  
45 (2) INFORMATION FOR SEQ ID NO:1:  
46

ENTERED

RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/699,716DATE: 11/13/96  
TIME: 14:49:41

INPUT SET: S13766.raw

47 (i) SEQUENCE CHARACTERISTICS:  
48 (A) LENGTH: 1566 bp  
49 (B) TYPE: Nucleic acid  
50 (C) STRANDEDNESS: Single  
51 (D) TOPOLOGY: Linear  
52  
53 (ii) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
54  
55 ATGGGCCATC ATCATCATCA TCATCATCAT CATCACAGCA 40  
56  
57 GCGGCCATAT CGACGACGAC GACAAGCATA TGAAAAAAT 80  
58  
59 CAGTTCCGTT ATCGCCATTG CATTATTTGG AACTATTGCA 120  
60  
61 ACTGCTAATG CGGCAGATTT AACTGCAAGC ACCACTGCAA 160  
62  
63 CGGCAACTCT TGTTGAACCA GCGCGCATCA CTCTTACATA 200  
64  
65 TAAGGAAGGC GCTCCAATTA CAATTATGGA CAATGGAAAC 240  
66  
67 ATCGATACAG AATTACTTGT TGGTACGCTT ACTCTTGGCG 280  
68  
69 GCTATAAAAC AGGAACCACT AGCACATCTG TTAACCTTAC 320  
70  
71 AGATGCCGCG GGTGATCCCA TGTACTTAAC ATTTACTTCT 360  
72  
73 CAGGATGGAA ATAACCACCA ATTCACTACA AAAGTGATTG 400  
74  
75 GCAAGGATTC TAGAGATTTT GATATCTCTC CTAAGGTAAA 440  
76  
77 CGGTGAGAAC CTTGTGGGGG ATGACGTCGT CTTGGCTACG 480  
78  
79 GGCAGCCAGG ATTTCTTTGT TCGCTCAATT GGTTCCAAAG 520  
80  
81 GCGGTAAACT TGCAGCAGGT AAATACACTG ATGCTGTAAC 560  
82  
83 CGTAACCGTA TCTAACCAAG AATTCATGAT TAGAGCCTAC 600  
84  
85 GAACAAAACC CACAACATTT TATTGAGGAT CTAGAAAAAG 640  
86  
87 TTAGGGTGGA ACAACTTACT GGTCATGGTT CTTCAGTTTT 680  
88  
89 AGAAGAATTG GTTCAGTTAG TCAAAGATAA AAATATAGAT 720  
90  
91 ATTTCCATTA AATATGATCC CAGAAAAGAT TCGGAGGTTT 760  
92  
93 TTGCCAATAG AGTAATTACT GATGATATCG AATTGCTCAA 800  
94  
95 GAAAATCCTA GCTTATTTTC TACCCGAGGA TACCATTCTT 840  
96  
97 AAAGGCGGTC ATTATGACAA CCAACTGCAA AATGGCATCA 880  
98  
99 AGCGAGTAAA AGAGTTCCTT GAATCATCGC CGAATACACA 920

**INPUT SET: S13766.raw**

152 Ile Ala Ile Ala Leu Phe Gly Thr Ile Ala Thr Ala Asn Ala Ala

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/699,715

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INPUT SET: S13766.raw

153		35		40		45
154						
155	Asp Leu Thr Ala	Ser Thr Thr Ala Thr	Ala Thr Leu Val	Glu Pro		
156		50		55		60
157						
158	Ala Arg Ile Thr	Leu Thr Tyr Lys Glu	Gly Ala Pro Ile Thr	Ile		
159		65		70		75
160						
161	Met Asp Asn Gly	Asn Ile Asp Thr Glu	Leu Leu Val Gly Thr	Leu		
162		80		85		90
163						
164	Thr Leu Gly Gly	Tyr Lys Thr Gly Thr	Thr Ser Thr Ser Val	Asn		
165		95		100		105
166						
167	Phe Thr Asp Ala	Ala Gly Asp Pro Met	Tyr Leu Thr Phe Thr	Ser		
168		110		115		120
169						
170	Gln Asp Gly Asn	Asn His Gln Phe Thr	Thr Lys Val Ile Gly	Lys		
171		125		130		135
172						
173	Asp Ser Arg Asp	Phe Asp Ile Ser Pro	Lys Val Asn Gly Glu	Asn		
174		140		145		150
175						
176	Leu Val Gly Asp	Asp Val Val Leu Ala	Thr Gly Ser Gln Asp	Phe		
177		155		160		165
178						
179	Phe Val Arg Ser	Ile Gly Ser Lys Gly	Gly Lys Leu Ala Ala	Gly		
180		170		175		180
181						
182	Lys Tyr Thr Asp	Ala Val Thr Val Thr	Val Ser Asn Gln Glu	Phe		
183		185		190		195
184						
185	Met Ile Arg Ala	Tyr Glu Gln Asn Pro	Gln His Phe Ile Glu	Asp		
186		200		205		210
187						
188	Leu Glu Lys Val	Arg Val Glu Gln Leu	Thr Gly His Gly Ser	Ser		
189		215		220		225
190						
191	Val Leu Glu Glu	Leu Val Gln Leu Val	Lys Asp Lys Asn Ile	Asp		
192		230		235		240
193						
194	Ile Ser Ile Lys	Tyr Asp Pro Arg Lys	Asp Ser Glu Val Phe	Ala		
195		245		250		255
196						
197	Asn Arg Val Ile	Thr Asp Asp Ile Glu	Leu Leu Lys Lys Ile	Leu		
198		260		265		270
199						
200	Ala Tyr Phe Leu	Pro Glu Asp Thr Ile	Leu Lys Gly Gly His	Tyr		
201		275		280		285
202						
203	Asp Asn Gln Leu	Gln Asn Gly Ile Lys	Arg Val Lys Glu Phe	Leu		
204		290		295		300
205						

# RAW SEQUENCE LISTING PATENT APPLICATION US/08/699,716

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206	Glu Ser Ser Pro Asn Thr Gln Trp Glu Leu Arg Ala Phe Met Ala		
207		305	310
208			315
209	Val Met His Phe Ser Leu Thr Ala Asp Arg Ile Asp Asp Asp Ile		
210		320	325
211			330
212	Leu Lys Val Ile Val Asp Ser Met Asn His His Gly Asp Ala Arg		
213		335	340
214			345
215	Ser Lys Leu Arg Glu Glu Leu Ala Glu Leu Thr Ala Glu Leu Lys		
216		350	355
217			360
218	Ile Tyr Ser Val Ile Gln Ala Glu Ile Asn Lys His Leu Ser Ser		
219		365	370
220			375
221	Ser Gly Thr Ile Asn Ile His Asp Lys Ser Ile Asn Leu Met Asp		
222		380	385
223			390
224	Lys Asn Leu Tyr Gly Tyr Thr Asp Glu Glu Ile Phe Lys Ala Ser		
225		395	400
226			405
227	Ala Glu Tyr Lys Ile Leu Glu Lys Met Pro Gln Thr Thr Ile Gln		
228		410	415
229			420
230	Val Asp Gly Ser Glu Lys Lys Ile Val Ser Ile Lys Asp Phe Leu		
231		425	430
232			435
233	Gly Ser Glu Asn Lys Arg Thr Gly Ala Leu Gly Asn Leu Lys Asn		
234		440	445
235			450
236	Ser Tyr Ser Tyr Asn Lys Asp Asn Asn Glu Leu Ser His Phe Ala		
237		455	460
238			465
239	Thr Thr Cys Ser Asp Lys Ser Arg Pro Leu Asn Asp Leu Val Ser		
240		470	475
241			480
242	Gln Lys Thr Thr Gln Leu Ser Asp Ile Thr Ser Arg Phe Asn Ser		
243		485	490
244			495
245	Ala Ile Glu Ala Leu Asn Arg Phe Ile Gln Lys Tyr Asp Ser Val		
246		500	505
247			510
248	Met Gln Arg Leu Leu Asp Asp Thr Ser Gly Lys		
249		515	520
250			
251			

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 bp

(B) TYPE: Nucleic acid

(C) STRANDEDNESS: Single

(D) TOPOLOGY: Linear